Massachusetts Department of Public Health
Division of Epidemiology and Immunization

Advisory Committee on Immunization Practices (ACIP) Provisional Recommendations for Prevention of Varicella

In June 2005 and June 2006, the ACIP made policy changes for use of live, attenuated varicella-containing vaccines for prevention of varicella. Changes include routine two dose varicella vaccination of children and second dose catch-up varicella vaccination for children, adolescents and adults who previously had received only one dose. The ACIP also expanded recommendations for varicella-containing vaccines to promote wider use of the vaccine for adolescents, adults, and HIV-infected children and approved new criteria for evidence of immunity to varicella.

Provisional recommendations for prevention of varicella:

• **All children <13 years of age should be administered routinely two doses of varicella-containing vaccine,** with the first dose administered at 12-15 months of age and the second dose at 4-6 years of age (i.e., before a child enters kindergarten or first grade). The second dose can be administered at an earlier age provided the interval between the first and second dose is at least 3 months. However, if the second dose is administered at least 28 days following the first dose, the second dose does not need to be repeated.

• **A second dose catch-up varicella vaccination is recommended for children, adolescents, and adults who previously had received one dose,** to improve individual protection against varicella and for more rapid impact on school outbreaks. Catch-up vaccination can be implemented during routine health care provider visits and through school and college entry requirements. Catch-up second dose can be administered at any interval longer than 3 months after the first dose.

Remark:
The two-dose varicella vaccination schedule is similar to the measles, mumps and rubella (MMR) vaccination schedule. Measles, mumps, rubella and varicella (MMRV) vaccine is licensed and indicated for simultaneous vaccination against measles, mumps, rubella, and varicella among children 12 months through 12 years of age. For routine immunization, use of licensed combination vaccines, such as MMRV vaccine, is preferred over separate injection of equivalent component vaccines.

• **Middle, high school and college requirements.** ACIP reiterates its previous recommendation that official health agencies should take necessary steps, including developing and enforcing school immunization requirements, to ensure that students at all grade levels (including college) and children in child care facilities are protected against vaccine-preventable diseases, including varicella. For varicella, this recommendation adds middle school, high school and college requirements to the child care and elementary school entry requirements already covered by the 1999 recommendation (http://www.cdc.gov/mmwr/PDF/rr/rr4806.pdf). School and child care immunization requirements should be implemented when provision of varicella vaccine has been well incorporated into practice and supply is adequate.

• **Varicella vaccination of HIV-infected children**. HIV-infected children ≥12 months of age in CDC clinical class N, A, or B with CD4+ T-lymphocyte counts ≥15% and without evidence of varicella immunity should receive two doses of single antigen varicella vaccine at a minimum interval of 3 months. Varicella vaccine was recommended previously for asymptomatic or mildly symptomatic HIV-infected children (CDC clinical class N and A) with age-specific CD4+ T-lymphocyte counts ≥25% (http://www.cdc.gov/mmwr/PDF/rr/rr4806.pdf). Because data are not available on safety, immunogenicity or efficacy of MMRV vaccine in HIV-infected children, MMRV vaccine should not be administered as a substitute for the component vaccines when vaccinating HIV infected children.

• **Prenatal assessment and postpartum vaccination.** Women should be assessed prenatally for evidence of varicella immunity. Upon completion or termination of their pregnancies, women who do not have evidence

of varicella immunity should receive the first dose of varicella vaccine before discharge from the healthcare facility. The second dose should be administered 4 to 8 weeks later (at the postpartum or other healthcare visit). To ensure administration of varicella vaccine, standing orders are recommended for healthcare settings where completion or termination of pregnancy occurs.

• **Vaccination of people ≥13 years of age.** Varicella vaccine was recommended previously for people ≥13 years of age without evidence of immunity who 1) have close contact with people at high risk for severe disease (health care providers and family contacts of immunocompromised people) or 2) are at high risk for exposure or transmission (http://www.cdc.gov/mmwr/preview/mmwrhtml/00042990.htm). The ACIP now recommends that all other people ≥13 years of age without evidence of immunity be vaccinated with 2 doses of varicella vaccine at an interval of 4-8 weeks. The vaccine may be offered during routine healthcare visits.

• **Second dose varicella vaccine for outbreak control.** During a varicella outbreak, people who have received one dose of varicella vaccine should receive a second dose, provided the appropriate vaccination interval has elapsed since the first dose (3 months for people 12 months to 12 years of age and at least 4 weeks for people ≥13 years of age).

Contraindications and precautions to use of varicella vaccine are available at:
http://www.cdc.gov/mmwr/preview/mmwrhtml/00042990.htm

• **Revised criteria for evidence of immunity to varicella** includes any of the following:

1. Documentation of age-appropriate vaccination:
   a. Preschool-aged children ≥12 months of age: one dose
   b. School-aged children, adolescents, and adults: two doses[1]
2. Laboratory evidence of immunity[2] or laboratory confirmation of disease
3. Born in the US before 1980[3]
4. A healthcare provider diagnosis of varicella or healthcare provider verification of history of varicella disease[4]
5. History of herpes zoster based on healthcare provider diagnosis.

[1] For children who have received their first dose before age 13 years and the interval between the two doses was at least 28 days, the second dose is considered valid.

[2] Commercial assays can be used to assess disease-induced immunity, but they lack adequate sensitivity to detect reliably vaccine-induced immunity (may yield false negative results).

[3] For healthcare providers and pregnant women, birth before 1980 should not be considered evidence of immunity.

[4] Verification of history or diagnosis of typical disease can be done by any healthcare provider (e.g., school or occupational clinic nurse, nurse practitioner, physician assistant, physician). For people reporting a history of or presenting with atypical and/or mild cases, assessment by a physician or their designee is recommended and one of the following should be sought: a) an epidemiologic link to a typical varicella case or b) evidence of laboratory confirmation, if laboratory testing was performed at the time of acute disease. When such documentation is lacking, people should not be considered as having a valid history of disease, because other diseases may mimic mild atypical varicella.

Source: ACIP Provisional Recommendations for Prevention of Varicella. Available at:
http://www.cdc.gov/nip/vaccine/varicella/varicella_acip_recs_prov_june_2006.pdf

The Massachusetts Department of Public Health (MDPH) will be providing varicella or MMRV vaccine for the 2nd dose for **one** cohort of children at kindergarten entry (4-6 years of age), and for post-exposure/outbreak control (limited availability). MDPH is not able to provide varicella vaccine for routine catch-up for the 2nd dose.